

Appl. No. 10 511 394

Amdt. dated September 15, 2006

Reply to Office action mailed March 15, 2006

Claims 9, 11 to 23, and 26 to 29 are pending and under consideration. This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS SHOWING AMENDMENTS TO THE CLAIMS:

Claims 1- 8 (Canceled)

Claim 9. (Currently amended) A thermoplastic flame retardant resin composition comprising:

(A) about 40 to 95 parts by weight of a styrenic resin selected from the group consisting of styrenic resin without rubber, rubber modified polystyrene resin and a mixture thereof, selected from the group consisting of polystyrene resin without rubber, rubber modified polystyrene resin and a mixture thereof, wherein said rubber modified polystyrene resin is produced by polymerizing 80 to 99.5 parts by weight of one or more monomer(s) selected from the group consisting of styrene, N-substituted styrene, and α -alkyl styrene to 0.5 to 20 parts by weight of a rubber selected from the group consisting of butadiene, isoprene, copolymer of butadiene and styrene, and alkyl acrylate ;

(B) about 5 to 60 parts by weight of a polyphenylene ether;

(C) about 0.1 to 40 parts by weight of a rubber modified styrenic graft copolymer resin based on 100 parts by weight of the sum of (A) and (B) wherein said rubber modified graft copolymer resin is comprised of about 40 to 65 % by weight of a rubber and 60 to 35 % by weight of a styrenic copolymer resin which contains about 0. 1 to 8 % by weight of acrylonitrile or methacrylonitrile and about 92 to 99.9 % styrenic monomer excluding rubber; and

(D) about 5 to 30 parts by weight of a phosphorous-containing compound flame retardant wherein the phosphorous-containing compound flame retardant in the thermoplastic flame retardant resin composition consists essentially of an aromatic phosphoric acid ester compound based on 100 parts by weight of the sum of (A) and (B).

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Claim 10. (Canceled)

Claim 11. (Previously presented) The thermoplastic flame retardant resin composition as defined in claim 10, wherein said styrenic resin (A) is polystyrene.

Claim 12. (Previously presented) The thermoplastic flame retardant resin composition as defined in claim 10, wherein said styrenic resin (A) is a rubber modified polystyrene resin.

Claim 13. (Previously presented) The thermoplastic flame retardant resin composition as defined in claim 9, wherein said styrenic copolymer resin contains about 0.1 to 8 % by weight of acrylonitrile excluding rubber.

Claim 14. (Previously presented) The thermoplastic flame retardant resin composition as defined in claim 9, wherein said styrenic copolymer resin contains about 0.1 to 8 % by weight of methacrylonitrile excluding rubber.

Claim 15. (Previously presented) The thermoplastic flame retardant resin composition as defined in claim 9, wherein said styrenic copolymer resin further comprises less than 40 parts by weight of a monomer selected from the group consisting of acrylic acid, methacrylate, maleic anhydride, and N-substituted maleimide, per 100 parts by weight of said rubber modified styrenic resin.

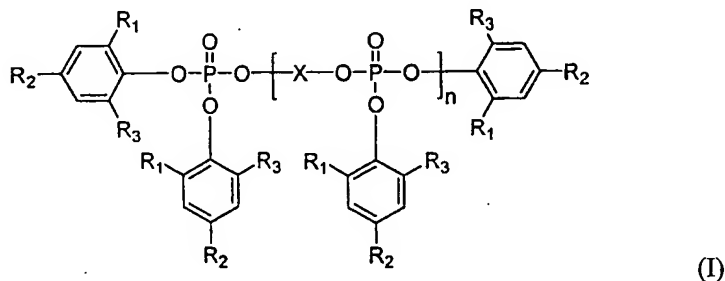
Claim 16. (Previously presented) The thermoplastic flame retardant resin composition as defined in claim 9, wherein said styrenic copolymer resin contains 0.1 to 5 % by weight of acrylonitrile excluding rubber.

Claim 17. (Previously presented) The thermoplastic flame retardant resin composition as defined in claim 9, wherein said styrenic copolymer resin contains 0.1 to 5 % by weight of methacrylonitrile excluding rubber.

Claim 18. (Previously presented) The thermoplastic flame retardant resin composition as defined in claim 9, the styrenic monomer is styrene, α -methyl styrene, or p-methyl styrene.

Claim 19. (Previously presented) The thermoplastic flame retardant resin composition as defined in claim 9, wherein said styrenic monomer is styrene.

Claim 20. (Previously presented) The thermoplastic flame retardant resin composition as defined in claim 9, wherein said aromatic phosphoric acid ester is represented by following formula (I):



wherein R_1 , R_2 and R_3 independently of one another are hydrogen or C_{1-4} alkyl; X is a C_{6-20} aryl group or alkyl-substituted C_{6-20} aryl group that are derivatives from a dialcohol derivative wherein the dialcohol derivative is resorcinol, hydroquinol, bisphenol-A or bisphenol-S; and n is 0~4.

Claim 21. (Previously presented) The thermoplastic flame retardant resin composition as defined in claim 9, further comprising an anti-dripping agent, an impact modifier, an inorganic filler, a heat stabilizer, an anti-oxidants, a light stabilizer, a pigment, and/or dye.

Claim 22. (Currently amended) A thermoplastic flame retardant resin composition comprising:

(A) about 40 to 95 parts by weight of a styrenic resin selected from the group consisting of polystyrene resin, rubber modified polystyrene resin and a mixture thereof ;

(B) about 5 to 60 parts by weight of a polyphenylene ether;

(C) about 0.1 to 40 parts by weight of a rubber modified polystyrene copolymer resin based on 100 parts by weight of the sum of (A) and (B) wherein said rubber modified polystyrene graft copolymer resin is comprised of about 40 to 65 % by weight of a rubber and 60 to 35 % by weight of a polystyrene copolymer resin which contains about 0.1 to 8 % by weight of acrylonitrile and about 92 to 99.9 % of styrene excluding rubber; and

(D) about 5 to 30 parts by weight of a phosphorous-containing compound flame retardant wherein the phosphorous containing compound flame retardant in the resin composition consists ~~essentially~~ of an aromatic phosphoric acid ester compound based on 100 parts by weight of the sum of (A) and (B).

Claim 23. (Previously presented) The thermoplastic flame retardant resin composition as defined in claim 22, wherein said polystyrene copolymer resin contains 0.1 to 5 % by weight of acrylonitrile and about 95 to 99.9% by weight of styrene excluding rubber.

Claim 24 to 25. (Canceled)

Claim 26. (New) A thermoplastic flame retardant resin composition comprising:

(A) about 40 to 95 parts by weight of a styrenic resin which consists of styrenic monomeric units;

(B) about 5 to 60 parts by weight of a polyphenylene ether;

(C) about 0.1 to 40 parts by weight of a rubber modified styrenic graft copolymer resin based on 100 parts by weight of the sum of (A) and (B) wherein said rubber

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modified graft copolymer resin is comprised of about 40 to 65 % by weight of a rubber and 60 to 35 % by weight of a styrenic copolymer resin which contains about 0.1 to 8 % by weight of acrylonitrile or methacrylonitrile and about 92 to 99.9 % styrenic monomer excluding rubber; and

(D) about 5 to 30 parts by weight of a phosphorous-containing compound flame retardant wherein the phosphorous-containing compound flame retardant consists of an aromatic phosphoric acid ester compound based on 100 parts by weight of the sum of (A) and (B).

Claim 27. (New) The thermoplastic flame retardant resin composition as defined in claim 26, wherein said styrenic monomeric units are styrene, N-substituted styrene, or α -alkyl styrene monomeric units.

Claim 28. (New) The thermoplastic flame retardant resin composition as defined in claim 26, wherein said styrenic resin (A) is polystyrene resin, rubber modified polystyrene resin, or a mixture thereof.

Claim 29. (New) The thermoplastic flame retardant resin composition as defined in claim 26, wherein said rubber modified graft copolymer resin is comprised of about 40 to 65 % by weight of a rubber having an average particle size of from 0.1 to 0.4 μm and 60 to 35 % by weight of a styrenic copolymer resin which contains about 0.1 to 8 % by weight of acrylonitrile or methacrylonitrile and about 92 to 99.9 % of styrenic monomer excluding rubber.